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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,878	03/05/2007	Yoshitaka Nishio	49288.3200	1799
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EXAMINER LEE, LAURA MICHELLE				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,878

Applicant(s)

NISHIO, YOSHITAKA

Examiner

LAURA M. LEE

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 12/11/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. In this office action, claims 1-8 are pending.

Drawings

2. Figures 15-21 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the restriction and restraining means (claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. In paragraph [0049], there is a reference to claim 4. This reference to the claims should be removed. If upon allowance of the application, the claims may become renumbered and therefore would not be consistent with the specification. Also, it's possible that during prosecution the scope of the claims could change.
5. The claims refer to several limitations that do not have proper antecedent in the specification; among them: first supporting means (claim 5); restriction means (claim 5 line 4); third turning axis (claim 5); restraining means (claim 5)
6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claim 5 is objected to because of the following informalities:

Claim 5, lines 4-5, recite, "a restricting means for restricting the scribing line forming means approaching the substrate." It is suggested to amend the claim to read -
- a restricting means for restricting the movement of the scribing line forming means towards the substrate--.

Claim 5, lines 6-7, should be changed from "the third turnable axis" to --the third turning axis--.

Claim 5, line 9, "the restriction includes a restraint means, the restraint means being" should be changed to -- the restriction means includes a restraining means, the restraining means being--.

Claim 5, line 11, "contact" should be --contacts--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 5, it is noted that several of the limitations do not appear to have been properly identified in the specification as noted above. However, as the examiner best understands the applicant intent, it appears that the first supporting means is holder holding member, 404, the third turning axis is spindle, 403 and the restriction means are servo motor 402 and the restraining means are bevel gears 405A/B. Therefore, it is not understood, if in line 7, the limitation "the third tunable axis having an axial center vertical to the axial center of the second turning axis" if the applicant is claiming an axis that extends top to bottom or an axis that is perpendicular to the second turning axis? It appears from the drawings that if the spindle 403 is the third turning axis that the applicant intended to claim either a horizontal or a perpendicular axis and not a vertical axis. However, the examiner is not sure as to what aspect of the invention is the claimed restriction and restraining means.

Also, if the applicant did not intend for the servo motor 402 and the restraining bevel gears 405A/B to be construed as the restriction and restraining means, then the examiner does not see support for the limitation of lines -12, which recite "the restriction means includes a restraining means, the restraint means being structured so as to restrain the turning of the first supporting means about the third turning axis and such that a portion of the first supporting means contact the restraining means" as the only other restriction means referred to in the specification refers to the scribing line forming

mechanism. The examiner has therefore interpreted these restriction means and restraining means as such.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-2, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Insolio (U.S. Patent 4,228,711).

Insolio discloses a scribing line forming mechanism comprising: a scribing line forming means (glass scoring wheel, 14) being structured so as to form a scribing line on a substrate by contacting the substrate; and a supporting means (pendulum, 26, axle 20) for supporting the scribing line forming means (wheel, 14) such that the scribing line forming means (14) is turnable about a first turning axis defined by axle 20), the supporting means (pendulum 26) being structured so as to be turnable about a second turning axis (defined by pin 28; See Figures 4-6), the second turning axis (28) being different from the first turning axis (20), wherein the axial center of the first turning axis (20) and the axial center of the second turning axis (28) are approximately in parallel (extending into the page as best seen in Figure 5) and the axial center of the second turning axis (28) is distant by a predetermined interval (i.e. approx. by the length of

pendulum 26) from a portion where the substrate and the scribing line means forming means contact each other.

It is noted that the limitation of "is distant by a predetermined interval" does not imply a constant or fixed interval. Applicant should also note that the limitations scribing line forming means are not in compliance with the Supplemental Guidelines published in the Official Gazette on July 25, 2000. Such limitations cannot be used to invoke 35 USC 112, 6th paragraph, and have therefore been given their broadest reasonable interpretation, without considering equivalence.

In regards to claim 2, Insolio discloses wherein the scribing line forming means includes a cutter wheel (14), and the supporting means (20/26) includes a cutter supporting means (20/26) for the cutting wheel (14) such that the cutter wheel is rotatable (about pivots 20 and 28).

In regards to claim 4, Insolio discloses a scribing line forming mechanism according to claim 1; and a pressure application means (i.e. fluid actuator, 60) for applying a pressure force to the scribing line forming mechanism in order to press the scribing line forming means onto the substrate.

In regards to claim 8, Insolio discloses a scribing apparatus comprising a scribing head according to claim 4 and a moving means (i.e. piston 34, spring, 40, and stem 32 and movement of head Figure 1) for moving the scribing head (14) on a surface (for example sheet 12), the surface being approximately parallel to the substrate, such that the scribing line forming means forms the scribing line on the substrate (in a direction as shown by arrows 22 and 30 Figures 4/5).

12. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Galindez (U.S. Patent 4,372,471).

Galindez discloses a scribing line forming mechanism (Figure 9) comprising: a scribing line forming means (cutter wheel, 101) being structured so as to form a scribing line on a substrate by contacting the substrate; and a supporting means (cutter assembly, 105 / bearing housing 123) for supporting the scribing line forming means (wheel, 101) such that the scribing line forming means (101) is turnable about a first turning axis (defined by axis of cylindrical stub portion, 135), the supporting means (105/123) being structured so as to be turnable about a second turning axis (pivot point between arm T and arm S; Figure 12), the second turning axis (TS pivot) being different from the first turning axis (at 135), wherein the axial center of the first turning axis and the axial center of the second turning axis are approximately in parallel (both are vertical axis) and the axial center of the second turning axis (TS pivot) is distant by a predetermined interval (i.e. approx. by the length of arm S) from a portion where the substrate and the scribing line means forming means contact each other.

It is noted that the limitation of "is distant by a predetermined interval" does not imply a constant or fixed interval. Applicant should also note that the limitations scribing line forming means are not in compliance with the Supplemental Guidelines published in the Official Gazette on July 25, 2000. Such limitations cannot be used to invoke 35 USC 112, 6th paragraph, and have therefore been given their broadest reasonable interpretation, without considering equivalence.

In regards to claim 2, Galindez discloses wherein the scribing line forming means includes a cutter wheel (101), and the supporting means (105/123) includes a cutter supporting means (105/102) for the cutting wheel (101) such that the cutter wheel is rotatable (at 102).

In regards to claim 3, Galindez discloses wherein the supporting means (105/123) includes a bearing (bearing, 108) for supporting the scribing line forming means (101).

In regards to claim 4, Galindez discloses a scribing line forming mechanism according to claim 1; and a pressure application means (i.e. piston 118/ fluid cylinder, 111) for applying a pressure force to the scribing line forming mechanism in order to press the scribing line forming means onto the substrate.

Allowable Subject Matter

13. Claims 5-7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a scribing line forming mechanism with a scribe line forming means rotatable about a first axis parallel yet different from the axis of a supporting means that is further supported by a first supporting means rotatable about a third axis perpendicular (vertical) to the first two axes and also with a restriction means that restrains the turning of the first supporting means by contact.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schotter et al. (U.S. Patent 4,383,460); Insolio et al. (U.S. Patent 3,399,586); Pereman (U.S. Patent 3,797,340); Imamura (U.S. Patent 3,555,944); Wyman (U.S. Patent 2,254,162)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Laura M Lee/
Examiner, Art Unit 3724
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